

FIG. 1

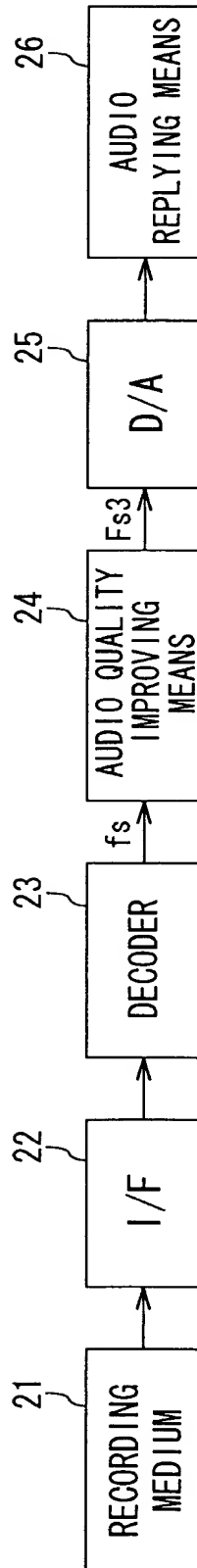


FIG. 2

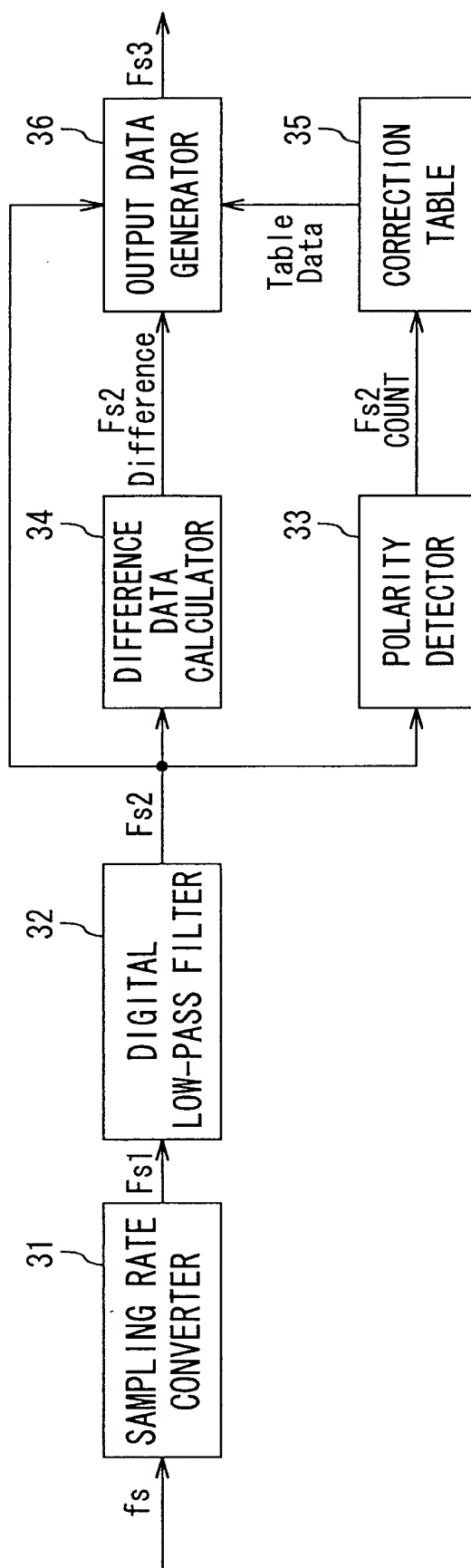


FIG. 3



ALGORITHM OF DOUBLE-EXTENDED SAMPLING

INPUT DATA SAMPLED AT RATE = f_s	OUTPUT DATA CONVERTED TO RATE= $F_s (=2 \times f_s)$
m	m
m+1	0
m+2	m+1
m+3	0
.	m+2
.	0
.	m+3
	0
	.
	.
	.

FIG. 4



CORRECTION TABLE A

Fs2COUNT	3 (=2Fs)	4 (=3Fs)	5 (=4Fs)	6 (=5Fs)
n=1	0	0	0	0
n=2	$1/4 (= \alpha)$	$1/4 (= \alpha)$	$1/4 (= \alpha)$	$1/4 (= \alpha)$
n=3	—	$-1/4 (= \beta)$	0	0
n=4	—	—	$-1/4 (= \beta)$	0
n=5	—	—	—	$-1/4 (= \beta)$

FIG. 5A

CORRECTION TABLE B

Fs2COUNT	3 (=2Fs)	4 (=3Fs)	5 (=4Fs)	6 (=5Fs)
n=1	0	0	0	0
n=2	$-1/4 (= \beta)$	$-1/4 (= \gamma)$	$-1/4 (= \gamma)$	$-1/4 (= \gamma)$
n=3	—	$1/4 (= \theta)$	0	0
n=4	—	—	$1/4 (= \theta)$	0
n=5	—	—	—	$1/4 (= \theta)$

FIG. 5B

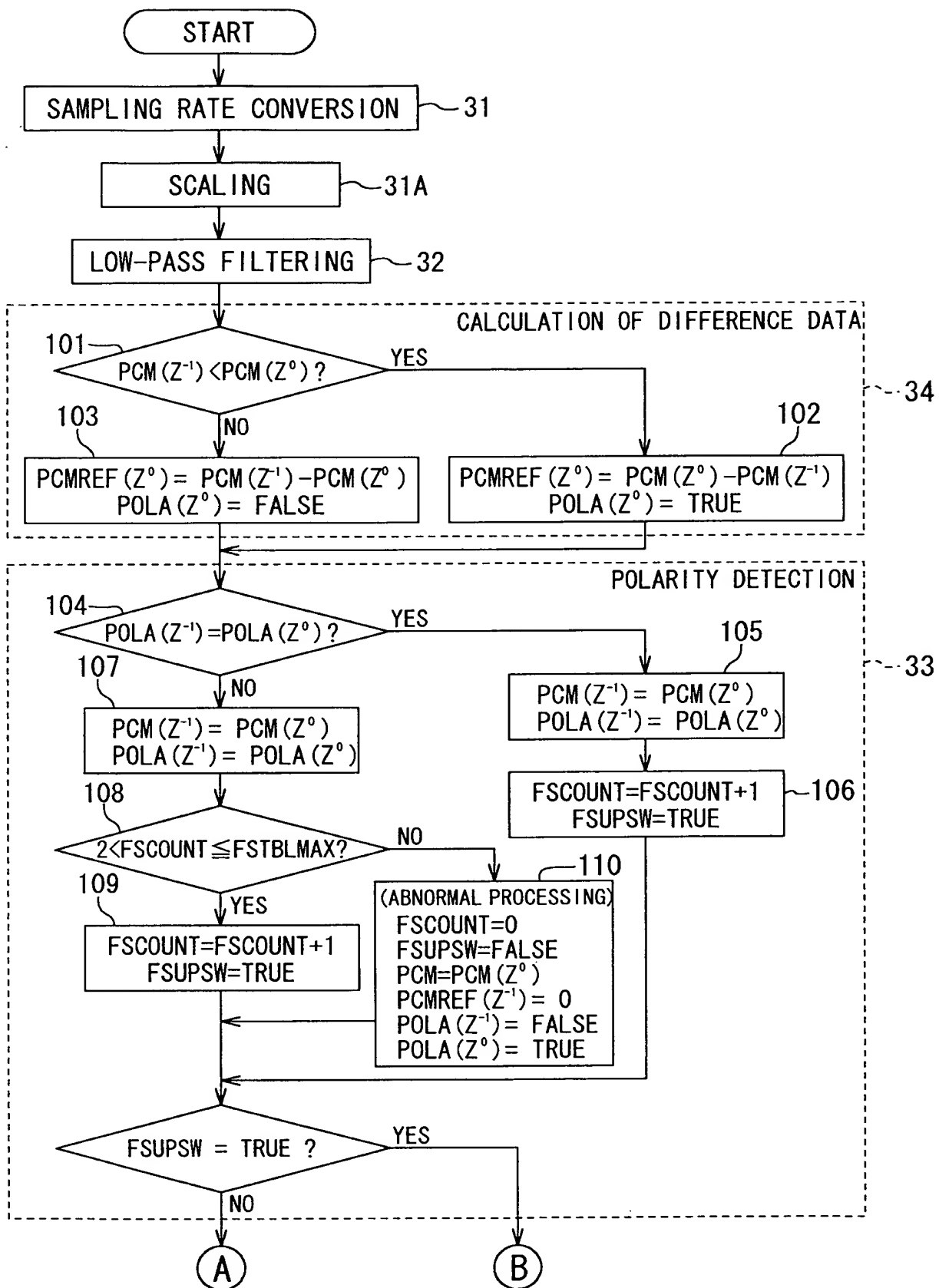


FIG. 6

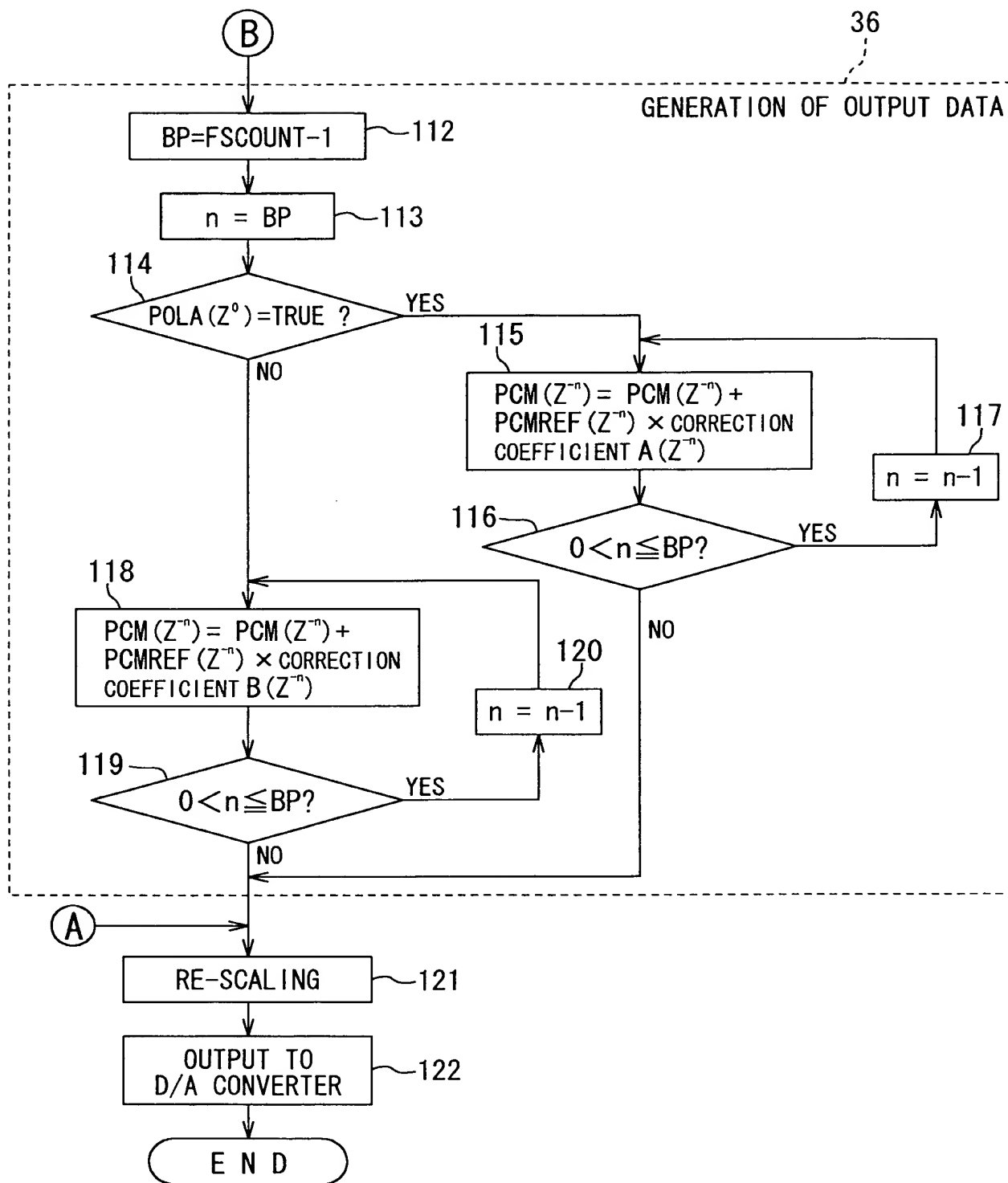


FIG. 7

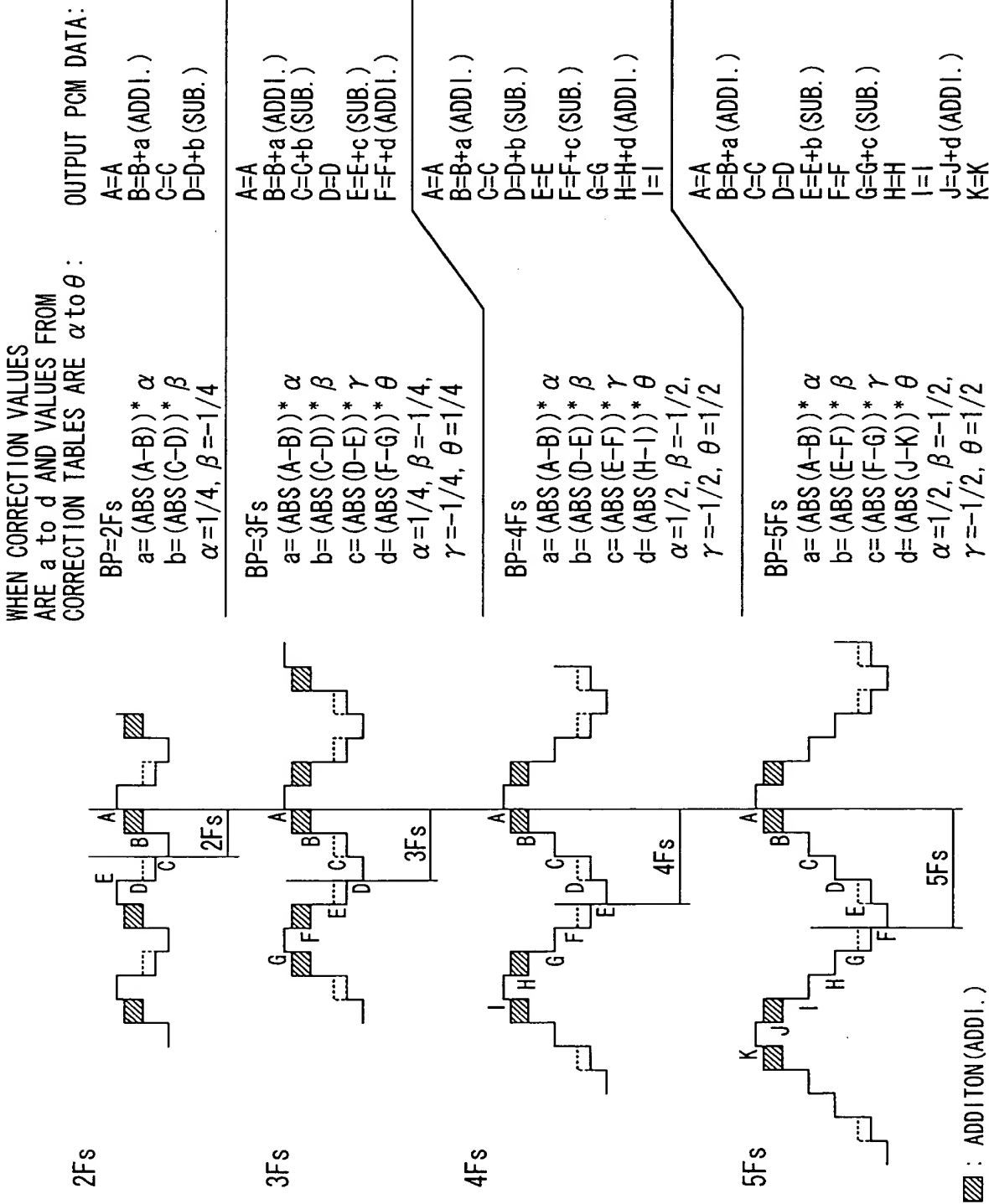
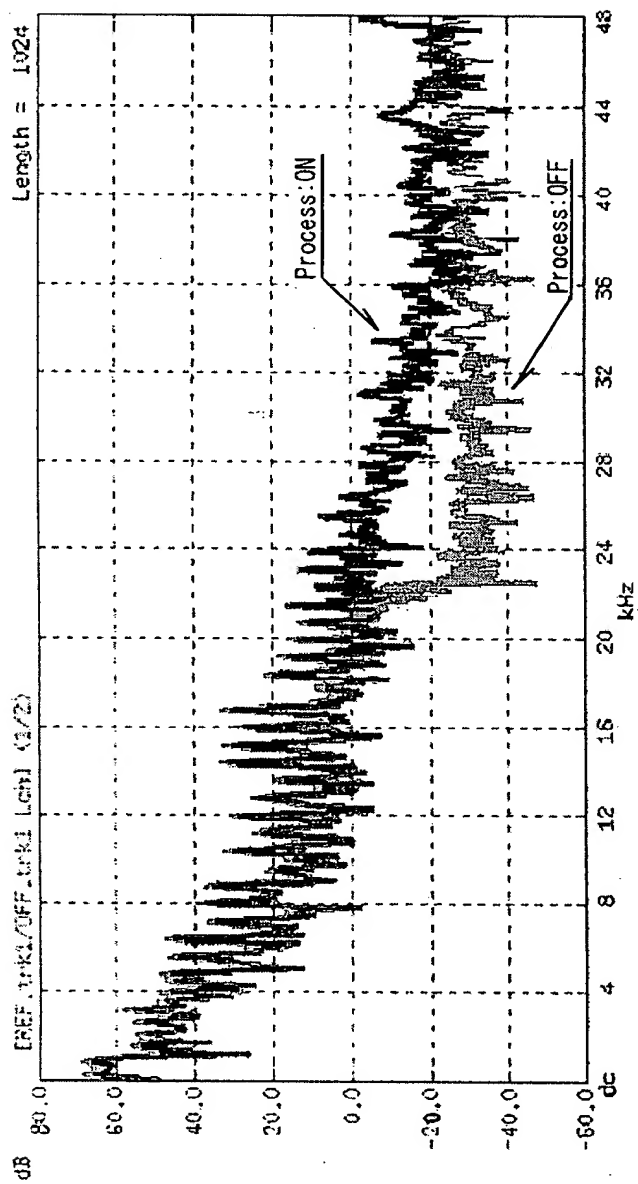


FIG. 8



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OUTPUT LEVELS OF SPECTRUM ANALYZER

[UPPER (ON) : WITH VOICE-QUALITY IMPROVEMENT PROCESSING
LOWER (OFF) : WITHOUT VOICE-QUALITY IMPROVEMENT PROCESSING]

FIG. 9

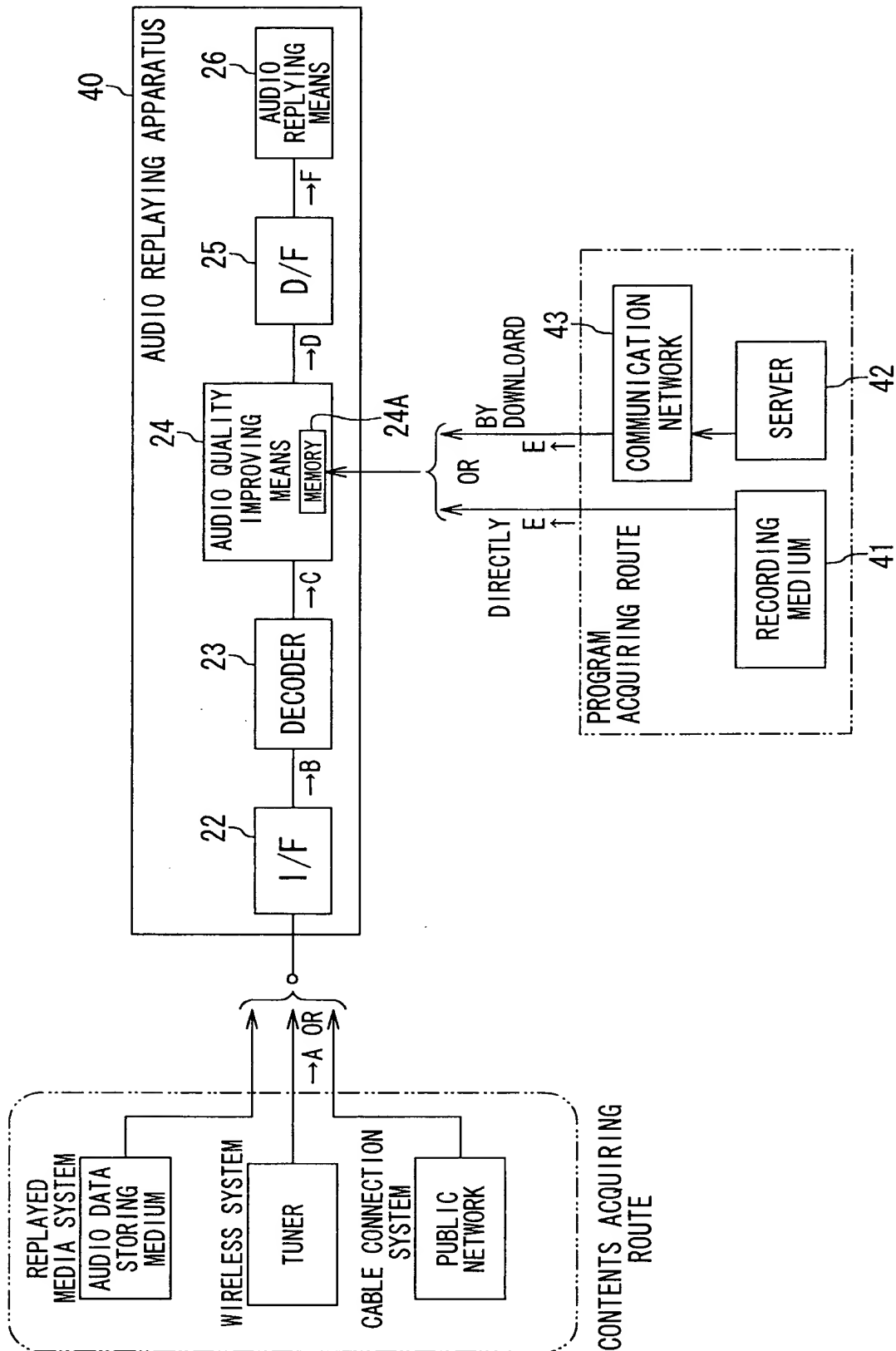


FIG. 10

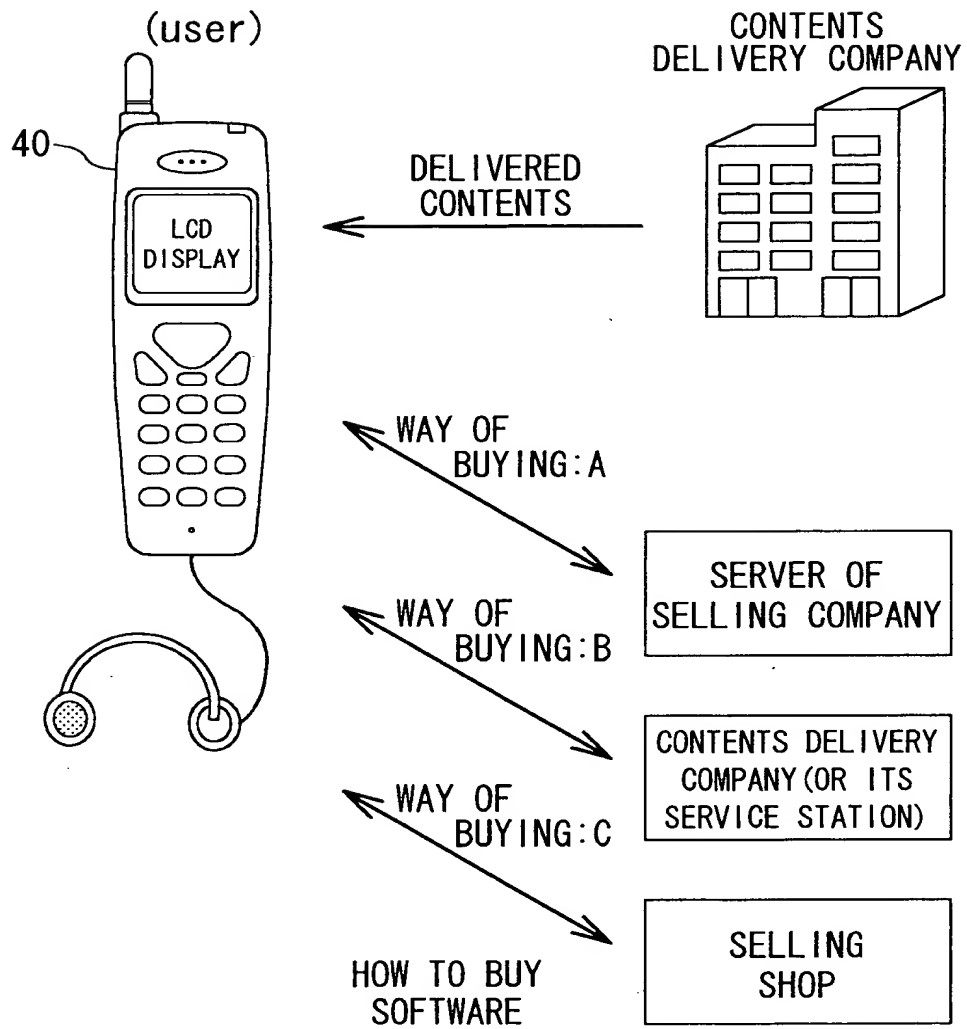


FIG. 11